

Subject: glowbugs V1 #239

glowbugs

Friday, February 6 1998

Volume 01 : Number 239

Date: Thu, 5 Feb 1998 12:10:59 -0500

From: "Ornitz, Barry L" <ornitz@eastman.com>

Subject: More RF current indicating devices...

In line with NA4G's wanting a low-cost RF power indication, I have two rather simple suggestions and one only slightly more complicated.

The first is to use the battery tester strips sold with many of today's alkaline batteries. These are composed of a strip of paper/plastic with metallization on one side and a coating of thermally sensitive liquid crystals on the other.

The metallization forms a load resistor for the battery. When the voltage is supplied to the load, the strip heats up proportional to the power supplied to it. As the temperature changes, the color of the liquid crystals changes on the other side. The metallization is applied in such a way that there is a temperature gradient giving an analog-like readout from the display.

It should be possible to use these testers as RF ammeters by merely connecting the two metallized battery contact pads in series with the transmission line to the antenna. The inductance is low enough that these should work fine through VHF. I do not know if you can solder directly to the metallization (and even if you can, the high temperature might destroy the liquid crystal polymers). I suggest a simple clamp for the connections or perhaps a pair of alligator clips. Conductive paint should work too. Be careful not to touch anything on the indicator during operation (RF burns are really painful). If you are satisfied with the operation of such a device, you can mount it in a box or behind a panel with a piece of clear plastic over it to keep fingers away. If you do this, mount the strip at least a centimeter away from the clear plastic to provide good air flow around the strip (it needs free convection of the surrounding air to work properly).

The second suggestion is to use small lamps in series with the transmission line. High current automotive bulbs (especially 6 volt ones) should work well. The bulb brightness will give a relative indication of the line current. Calibration is an issue, however. You can develop a calibrated "eyeball" or you can build a simple "oil spot" pyrometer. Lower current bulbs can be used for higher power by shunting the bulb across several inches of one conductor of the transmission line.

The optical pyrometer is really just a second bulb, wired to a battery and rheostat with the second bulb placed next to the first. The light from both bulbs is viewed through a diffuser. The rheostat is adjusted to match the brightness of its associated bulb to the brightness of the bulb in the RF circuit. The diffuser scatters the light a little and makes the eyeball comparison easier. Ground glass is used on professional pyrometers like this, but a piece of paper with a drop of oil applied will work about as well. The idea is that you can measure the DC current in the rheostat circuit easily and calibrate the dial of the rheostat. Once done, you merely turn the rheostat until the

brightness appears equal and read the RMS current from the dial.

The final suggestion is to build a REAL directional wattmeter. Warren Bruene, one of Art Collins' best engineers, pioneered the design of these. Most modern handbooks have the design which is really quite simple. With these you have the capability of reading the actual output power even when the load presents a VSWR of other than unity. [Actual power = Forward Power - Reflected Power] With an RF ammeter or RF voltmeter, the reading will vary with the location of the measurement point in the transmission line unless the VSWR is 1:1 (a 50 ohm dummy load fed with 50 ohm coax, for example). While most vacuum tube transmitters are fairly forgiving of high VSWR because of their wide-range matching networks, owning a directional wattmeter is still convenient. If you have a sensitive meter (1 mA or less full scale), the remainder of the parts needed to build such a wattmeter should cost less than \$10.

73, Barry L. Ornitz WA4VZQ
ornitz@eastman.com, ornitz@tricon.net

Date: Thu, 5 Feb 1998 12:24:31 -0600
From: w5hvv@aeneas.net (Roderick M. Fitz-Randolph)
Subject: Re: Chirpy Viking Ranger

>Hi Rod,
>
>Don't know much about the chirping problem, but I was interested in your
>chassis cleaning procedures using kerosene...What are the pros and cons of
>this procedure and could you expand on it a bit? I have three Viking II's
>in the queue for restoration - all needing chassis cleaning.
>
>Regards,

Walt, when I worked at Columbus AFB in the mid 50's and was working on ARC-3 transceivers, I was horrified to see one of the other techs dump the entire chassis in kerosene and start brushing it off with a paint brush. I was convinced that he had ruined every thing in the unit. Afterward, he took an air hose and hosed the whole thing off and it was spotless. He'd let it dry for a day and then re-tube it and try it out. They always worked fine.

When I clean a chassis now, I avoid the "total immersion" concept and use a paint brush (and/or a rag, when apropos) and a vacuum cleaner. I put kerosene in a glass jelly jar and use several different paint brush sizes in order to be able to clean the various, sometimes very difficult to get to, places.

I then dip the paint brush in the kerosene and apply it vigorously to the chassis. It tends to remove wax that may have dripped from an old capacitor, dust, dirt, some corrosion, etc. I then place the vacuum cleaner nozzle close to the area that is still wet and dry it. I sometimes use a dry, clean rag to go over the wet area first to remove as much of the kerosene as I can. (CAUTION, DO NOT do this with GASOLINE!) I continue to do a relatively small area at a time until it is complete.

It usually goes quite fast and makes the aluminum chassis look very good when I'm done.

I have some trepidation about using a vacuum cleaner and accumulating kerosene fumes in the cannister. So far, I have not had a problem. I would recommend air-drying the unit by placing it in the sun or garage or wherever until all the kerosene (that wasn't removed by a dry rag) is evaporated as opposed to using a vacuum cleaner ["Do as I say, not as I do"]. It only takes a few minutes in a good sun - at worst, overnight in the garage if the weather is inclement. Just make damned sure that the kerosene is gone before you "light it up". Avoid getting the kerosene on the laminations of any transformers or any place where the kerosene might tend to NOT evaporate.... just use good common sense.

Be cautious and careful. It does a beautiful job. I use just a small amount of hand soap and lightly go over the glass envelope of tubes that I want to clean up, then run water over the envelope to remove the soap. Then apply (by patting - now wiping) a kleenex to the envelope. That, so far, has not removed any of the identifying numbers and makes them look like new. Of course, you need to keep the water away from the tube base as some of the tube bases have a hole in stead of one of the pins and that would let water in..... however, it is not hard to prevent this from happening.

Anyhooooo, I have cleaned up a number of chassis, including several that had been left in a chicken coop for 10 years!!! They came out looking like new!

Rod, N5HV
w5hvv@aeneas.net

Date: Thu, 5 Feb 1998 13:39:32 -0500
From: "Carl Yaffey" <cyaffey@ml.sprynet.com>
Subject: Any interest in a CX logger?

I've been thinking about putting my software expertise to work in a Ham Radio project. I'd like to find something to write that nobody else has written (good luck, eh?).
Do any of you think a program to log contacts in the Classic Radio Exchange would be a good idea? As one option, it could allow you to enter all of your equipment ahead of time so that you could easily pick a trasmitter or receiver from a "pick" list when you made a contact.
Do you have any OTHER ideas fora Ham-related program that would do something unique?
TNX in advance es 73,
Carl K8NU

- -----
Carl Yaffey; cyaffey@sprynet.com, 614 268 6353, Columbus OH, K8NU (ex-W4EZB)
Yaffey Software Development, Inc., "bimusical" Banjo player for One Riot One Ranger.

/~~\\
|###| |=====#***| ' '

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Date: Thu, 5 Feb 1998 15:43:05 -0500 (EST)
From: rdkeys@csemail.cropsci.ncsu.edu
Subject: Re: More RF current indicating devices...

>
> In line with NA4G's wanting a low-cost RF power indication, I have two
> rather simple suggestions and one only slightly more complicated.
>
> The first is to use the battery tester strips sold with many of today's
> alkaline batteries.

Neat Idea!

> The second suggestion is to use small lamps in series with the
> transmission line.

The lamp and optical pyrometer examples are classics, and would be neat for glowbugs, especially for lower powered ones. But, I have this pair of ceramic lamp sockets, some 200 watt lamps, and a loose variac..... hmmm, time to see if something can be scratched together. Ground glass is cheap at the glaziers shop. One could calibrate it for different standardized household lamps from 7.5 watt night lights up to 200 or 500 watt mazda lamps, and thereby use it on most reasonable sized glowbug sets.

Perhaps one could use a silicon solar cell run to a 1 ma meter through a resistance and use that for matchneedle comparitors. The box would not need viewing ports, but probably would need to be painted black on the inside. Two solar cells, a switch, and a meter, and a calibration against AC power, perhaps.... hmmm.

One could use a pair of cadmium sulphide photocell from ratshack with a 1.5 volt battery and a series limiting scaling resistor and a microammeter or milliammeter to do the same thing. The resistance on those in the visible light region and near infared would allow the resistance to change from 500K to maybe 10-15K or so. That would be fairly easy to use for calibration on a variac maybe, if a suitable AC calibration ammeter could be found.

Back about 20 years or so I built some detector heads for an old Beckman DU spectrophotometer (converted the tube detectors to photocells and a high impedance FET voltmeter). The principle was basically the same. Stick the detector in a light tight black box and amplify the dickens out of the voltage from the photocell. I went over to the junk drawer and found a couple of the heads and one still has its CDS photoresistor and the other its GE 8PV2FAA octal plug based photocell. In the office light, the photocell puts out 100ua of current, so it should be workable on a 100ua or 1ma meter movement. One might even be able to hook them up on a zero-center meter so that they could be zeroed, and then the calibration read from the variac scale or a calibration table when zero balance is reached..... hmmm.

One could do the same thing and calibrate it against an in-line wattmeter, and scale it for RF amperes or PEP watts directly.

Hmmm.....This might get fun, and practical hands on, again.....(:+)}.....

> The final suggestion is to build a REAL directional wattmeter.

The old AC voltmeter (Weston 271) of mine is 2/3ds of a non-directional wattmeter, since it has the built-in rectifier and is sensitive enough (872 ac ohms per volt) that it only needs a pickup loop along the antenna line. I would expect that if it were matched at 1:1, then the line would show forward power only. I wonder how many of the odd unused AC voltmeters are sensitive enough to work directly like that?

Time to raid the junk boxes and get the fingers dirty again.....
Measures ye out yer powers froms yer fine glowbugges tonite!

Bob/NA4G

Date: Thu, 5 Feb 1998 13:53:52 -0600

From: w5hvv@aeneas.net (Roderick M. Fitz-Randolph)

Subject: Re: Chirpy Viking Ranger

>whats the matter with having a chirpy ranger?
>little chuup or thuckie or youpp
>never hurt anybody

I agree! A little chirp gives a distinctive sound that is easily picked out among the "straight" sounding ricebox CW.

Howsomever, this has a chirp that sometimes turns into a scratchy, scriggly, gurgling over about a 2 KHz range and you can't follow it, it moves so fast.

The prime suspect, according to some of the responses I've received is the 18K resistor that goes to the OA2 regulator tube. A number of messages said to replace that with a good high wattage 18K metal oxide resistor (or several in parallel to give the proper value and wattage).

The Ranger I remembered from my Grand Turk (VP5RR) days in the 50's was a chirpless wonder.....

Rod, N5HV
w5hvv@aeneas.net

Date: Thu, 5 Feb 1998 15:19:26 -0600

From: w5hvv@aeneas.net (Roderick M. Fitz-Randolph)

Subject: Re: Any interest in a CX logger?

>I've been thinking about putting my software expertise to work in a Ham
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>project. I'd like to find something to write that nobody else has written
>(good luck, eh?).
>Do any of you think a program to log contacts in the Classic Radio Exchange
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>a good idea? As one option, it could allow you to enter all of your
>equipment ahead of time so that you could easily pick a trasmitter or
>receiver from a "pick" list when you made a contact.
>Do you have any OTHER ideas fora Ham-related program that would do something
>unique?
>TNX in advance es 73,
>Carl K8NU

I think that is a super idea, Carl! I sure hope you can write it in Java
so that I can import it to another Classic: my Mac Classic II!!!!!!
If not, I'll have to bring in my frau's (ugh) 486/66.

Rod, N5HV
w5hvv@aeneas.net

Date: Thu, 5 Feb 1998 21:44:04 +0000
From: Sandy W5TVW <ebjr@worldnet.att.net>
Subject: Re: More RF current indicating devices...

At 12:10 PM 2/5/98 -0500, you wrote:

>In line with NA4G's wanting a low-cost RF power indication, I have two
>rather simple suggestions and one only slightly more complicated.
>
>The first is to use the battery tester strips sold with many of today's
>alkaline batteries. These are composed of a strip of paper/plastic with
>metallization on one side and a coating of thermally sensitive liquid
>crystals on the other.
>The metallization forms a load resistor for the battery. When the
>voltage is supplied to the load, the strip heats up proportional to the
>power supplied to it. As the temperature changes, the color of the
>liquid crystals changes on the other side. The metallization is applied
>in such a way that there is a temperature gradient giving an analog-like
>readout from the display.
>

These indeed *do work*, but *VERY* sluggishly! Makes for some
sort of indicator in an emergency. Also I found if used repeatedly, there
is a sort of 'persistance' in the strip's color that takes some time to fade
completely out.

>The second suggestion is to use small lamps in series with the
>transmission line. High current automotive bulbs (especially 6 volt
>ones) should work well. The bulb brightness will give a relative
>indication of the line current. Calibration is an issue, however.

Small lamps are excellent indicators. I have used low current lamps
(6v.@ 60 ma, 12 and 24 v.@ 20-60 ma., 6 v @ 150 ma #47, etc.) in a
socket shunted with a self supporting coil of about 10-15 turns of #16

solid wire about 1/2" in diameter spaced wire diameter. One can detect a fairly low RF current, even on QRP gear when using random wire antennas. If the point the lamp is connected in has a high impedance and the current is too low, then resort to a neon bulb like the NE-2 or similar. A discarded voltage regulator tube (0A2, 0B2, 0D3, VR-75, etc) will suffice if you don't have a neon bulb handy. The neons are *voltage* indicators and should have one or both end of the lamp tied in parallel with the wire feeder being monitored.

73,

E. V. Sandy Blaize, W5TVW

"Boat Anchors collected, restored, repaired, traded and used!"

417 Ridgewood Drive

Metairie, LA., 70001

860 Hartley 'ECO' construction "on hold"**

*** Looking for a TRC-10 transceiver *****

*** Looking for an RAL receiver *****

Date: Thu, 5 Feb 1998 17:08:07 -0500

From: "Ornitz, Barry L" <ornitz@eastman.com>

Subject: RE: More RF current indicating devices...

Whoa, Bob! You are missing something here.

> The lamp and optical pyrometer examples are classics, and would
> be neat for glowbugs, especially for lower powered ones. But,
> I have this pair of ceramic lamp sockets, some 200 watt lamps,
> and a loose variac..... hmmm, time to see if something can be
> scratched together. Ground glass is cheap at the glaziers shop.
> One could calibrate it for different standardized household lamps
> from 7.5 watt night lights up to 200 or 500 watt mazda lamps, and
> thereby use it on most reasonable sized glowbug sets.
>

The lamp is not the transmitter load. It is in series with the load. You want to use a low voltage lamp here because the voltage developed by the current flowing through the lamp is subtracted from the voltage that would normally go to the antenna. That bulb eats up a little of your signal. Using a higher voltage bulb eats up even more signal. Maybe an example will help explain:

Assume you have a 100 watt output transmitter and the normal load is 50 ohms. The RMS current will be $\sqrt{100/50} = 1.414$ amps. Now for this much current, we need a bulb whose normal operating current is somewhat higher. My guess is that a #1141 or #1142 automotive lamp will work well. These operate on 12.8 volts and 1.44 amps. With one of these bulbs in series, you will develop almost the full bulb voltage (something around 12.6 volts) with 1.414 amps flowing. But the bulb adds almost 9 ohms in series. This will change the transmitter load. In fact, to light the

bulb to full brilliance, the transmitter must put out 122 watts into 59 ohms. 103 watts will go into the 50 ohm load and nine watts will go into lighting the lamp.

This is why you want to use low voltage, high current lamps. They eat up less of your transmitter power. A much better approach is to use a low voltage, low current lamp shunted across a short section of resistance wire. For example I have some stainless wire of about 16 gauge that is about 2 ohms per foot. Three inches of this wire will give a resistance of 0.5 ohm. Running the full 1500 watts through this 0.5 ohm wire into a 50 ohm dummy load will produce 5.45 amps of RF current and 2.7 volts across the 0.5 ohm piece of wire. A #338 miniature lamp would be a good monitor here. It is rated at 2.7 volts at 0.06 amp. This bulb would light to full brilliance when 1505 watts were output from the transmitter. In this case 1490 of the watts would go to heating the 50 ohm load, and the remaining 15 watts would go into heating the three inch length of wire and in lighting the bulb. This is much more practical. A pair of flashlight batteries and a 1 K pot would do to power the second lamp.

Your ideas of using a photocell would work too. However, the calibration would be in approximately average watts. The thermal mass of the lamp filament will slow its response down to the point where the lamp brightness could not track voice very well (or even high speed CW).

73, Barry L. Ornitz WA4VZQ ornitz@tricon.net

>
>

Date: Thu, 5 Feb 1998 18:47:17 -0500 (EST)
From: rdkeys@csemail.cropsci.ncsu.edu
Subject: Re: More RF current indicating devices...

>
> Whoa, Bob! You are missing something here.

I thought about that after I pressed the send button..... (:+}}}....
mind only half cogged today..... (:+}}}.....

But, it would still hold for a calibrated dummy load. For testing purposes, the 200 watt lamp makes a good 50 ohm load for the 50-200 watt output range (close enough for testing for non-FCC play glowbugging specs). It also is its own indicator. Somewhere back in time I had a table of lamp values that I posted for various sized lamps as dummy loads. What I was thinking was to use the optical or metered pyranometer as the ``antique'' power indicator on the dummy load. Change bulbs to change power scale on the indicating dummy load. Probably as good as an RF ammeter.

Yes, use the smallest bulb practicable for something kept in the line, and then when not in use jumper around it. That line can be the antenna or the dummy load. What I was thinking was using the lamp itself for the indicating dummy load. Putting a 200 watt bulb in the line would eat up a goodly portion of the output signal, but not that much of it, in reality. Mismatch aside, adding a big bulb into the line roughly only halves the power, and that is only 3db lost gain, which is not that much. But, it is better to put in a bulb absorber indicator that is small relative to the total output, so it does not load the circuit down. For example, the infamous Grammer '32 Hartley uses a 4 watt or smaller bulb there for tuning, and then it is jumpered out when not actually tuning. Tune for max brilliancy on the bulb and then jumper it out.

Bob/NA4G

Date: Thu, 5 Feb 1998 18:57:15 -0500
From: "Ornitz, Barry L" <ornitz@eastman.com>
Subject: Cleaning with Kerosene! Watch out!

As the "resident chemist and safety guru" (*) on the other Boatanchor group, I cringed when I saw this. It came to me via Glowbugs. I am not sure if I can post to the Tempe list without being subscribed there. I hope someone will place this information on that list if my note is not posted there in a day or so.

> From: w5hvv@aeneas.net [SMTP:w5hvv@aeneas.net]
> When I clean a chassis now, I avoid the "total
> immersion" concept and use a paint brush (and/or a
> rag, when apropos) and a vacuum cleaner. I put
> kerosene in a glass jelly jar and use several
> different paint brush sizes in order to be able to
> clean the various, sometimes very difficult to get
> to, places.
>

There are two things to consider here. One is the compatibility of the electronic components with kerosene and the other is the fire hazard. Let's take the chemical compatibility first. Kerosene generally does not do too much damage to enamel paints (those that harden or dry by chemical reaction). It can soften many lacquers, however. Most cans of quick drying spray paint are really lacquers. So test ANY solvent first before using it on a radio or other painted surface. Kerosene has been known to remove the color codes from some components like resistors and capacitors too. Most thermoplastics (plastics that soften when heated) are quite susceptible to solvents. Even if they do not dissolve the plastic, you may run into crazing (surface fogging) and future stress corrosion cracking of the plastic. Electrolytic

capacitors that absorb any kerosene are generally ruined. Other components like waxed paper capacitors will also be damaged by kerosene. Even if the radio is more modern and uses dipped film capacitors, you need to worry. The encapsulation of most older components is not really that good and the kerosene can work its way into tiny cracks to reach the inside of capacitors, resistors, and coils. The damage may not be immediately apparent too. Kerosene will also dissolve any lubrication on switches, potentiometers and such. This may be good as the old lubrication is often hardened and gummy, but you do not want any kerosene trapped inside an "almost sealed" switch or pot. Always remember to re-lubricate switches.

The fire hazard is the other, more important, important issue.

> I then dip the paint brush in the kerosene and apply
> it vigorously to the chassis. It tends to remove
> wax that may have dripped from an old capacitor,
> dust, dirt, some corrosion, etc. I then place the
> vacuum cleaner nozzle close to the area that is
> still wet and dry it. I sometimes use a dry, clean
> rag to go over the wet area first to remove as much
> of the kerosene as I can. (CAUTION, DO NOT do this
> with GASOLINE!) I continue to do a relatively small
> area at a time until it is complete. It usually goes
> quite fast and makes the aluminum chassis look very
> good when I'm done.

>
I really got a cold chill when I read this. Vacuum cleaners generally pass the air over the hot motor to help it from overheating. Even if the motor is not hot enough to ignite the kerosene, most vacuum motors are universal-wound types with brushes - that spark! From an Exxon MSDS, kerosene has a flash point of 100 F (38 C) and a lower explosive limit of 0.9% in air. Pull a little too much in the vacuum and BOOM.

> I have some trepidation about using a vacuum cleaner
> and accumulating kerosene fumes in the cannister.
> So far, I have not had a problem. I would recommend
> air-drying the unit by placing it in the sun or
 garage or wherever until all the kerosene (that
> wasn't removed by a dry rag) is evaporated as
> opposed to using a vacuum cleaner ["Do as I say, not
> as I do"]. It only takes a few minutes in a good
> sun - at worst, overnight in the garage if the
> weather is inclement. Just make damned sure that
> the kerosene is gone before you "light it up".
> Avoid getting the kerosene on the laminations of any
> transformers or any place where the kerosene might
> tend to NOT evaporate.... just use good common sense.
>

I am glad Rod finally mentioned this. If you are smart, you will work outdoors. As for taking only a

few minutes in the sun, I would disagree. The vapor pressure of kerosene at normal room temperature is less than 0.6% of atmospheric pressure. This means it evaporates quite slowly. If it gets into semi-sealed components (Rod mentions transformers, I brought up potentiometers and toggle switches), it may take days or weeks to evaporate fully. If you can smell any kerosene odor, do NOT power up the radio!

Similar things can be said about WD-40 for use on electronic devices. WD-40 is basically about 70% Stoddard solvent (a refined kerosene) and the rest light mineral oil with a little proprietary corrosion inhibitor. The mineral oil reduces the evaporation of the kerosene, thus you really should wait quite a while before turning on a radio after using WD-40 on it. The same comments about paint and plastics compatibility apply to WD-40 too. In the spray cans, WD-40 uses liquefied petroleum gas as the propellant (butane and propane, mainly). This makes the spray EXTREMELY flammable. The flash point and lower explosive limit of WD-40 are slightly higher than straight kerosene.

Kerosene and other solvents do have their place in Boatanchor cleaning. But they are generally not suitable for "wholesale" use in every application. Most chassis clean up fine with simple mechanical cleaning. Remember there are really no shortcuts, lots of "elbow grease" is needed to do the job right. Soap and water work fine in most cleaning situations and a damp rag can work wonders too. Water will generally evaporate three times faster than kerosene too. When you have to remove old grease and wax, however, you may have to resort to a solvent.

I often use acetone and isopropyl alcohol in certain cleaning situations. The same comments about attacking paint and plastic apply even more here, especially with acetone. Both are quite flammable but neither are exceptionally toxic. They evaporate quite quickly too. I prefer to use them outdoors. After waiting a few minutes, you can usually bring the radio inside and work on it without the residual acetone or isopropanol being a fire hazard.

Unfortunately Freon-TF (trichloro-trifluoro-ethane) is virtually unavailable today because of ozone issues. It attacked VERY few materials, was a good degreaser, was nonflammable, had a very low toxicity, evaporated quickly, had a low viscosity and high density. It even dissolved silicone greases. Boy, do I miss it!

(*) I am not really a chemist. I am a chemical and electrical engineer. I work for Eastman Chemical Company and I design and build custom instrumentation.

Date: Thu, 05 Feb 1998 23:38:18 -0700
From: Dexter Francis <cwest@xmission.com>
Subject: Re: Any interest in a CX logger?

I have a Mac DX logging program that you may be interested in,
if I can only find the floppie...

- -df

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Date: Fri, 06 Feb 1998 10:35:25 +0100
From: Jan Axing <janax@algonet.se>
Subject: Re: Cleaning with Kerosene! Watch out!

Ornitz, Barry L wrote:

> I hope someone will place this information on that list
> if my note is not posted there in a day or so.

Barry,
I could not see your post in the Tempe list so I forwarded
it at 0925 UTC.
CC:ed this to the glowbugs list to avoid multiple forwards :-)

Jan, SM5GNN

Date: Fri, 6 Feb 1998 07:58:43 -0400
From: "Brian Carling" <bry@mnsinc.com>
Subject: Re: Any interest in a CX logger?

I just used Excel and made a file I could print out and send in!

After all, I only made about 35 contacts in three hours of operating!

It is not like November Sweepstakes where you need a computer to
track duplictaes for you etc.

On 5 Feb 98 at 13:39, Carl wrote:

> I've been thinking about putting my software expertise to work in a Ham
> Radio
> project. I'd like to find something to write that nobody else has written
> (good luck, eh?).

Date: Fri, 6 Feb 1998 11:12:03 -0300 (CLST)
From: Fernando Jorquera <fjorquer@myfamily.org>
Subject: Re: Cleaning with Kerosene! Watch out!

>As the "resident chemist and safety guru" (*) on the
>other Boatanchor group, I cringed when I saw this. It
The same occurred to me.

>I often use acetone and isopropyl alcohol in certain
>cleaning situations. The same comments about attacking
>paint and plastic apply even more here, especially with
>acetone. Both are quite flammable but neither are
My own experience cleaning vintage radio chassis with isopropyl alcohol was

very good. Does it really attack paint and plastic surfaces? I haven't experienced this never by myself.

>(*) I am not really a chemist. I am a chemical and
>electrical engineer. I work for Eastman Chemical
>Company and I design and build custom instrumentation.
Thanks, Barry for your comments. Your written teaching abilities are very good!
>
> 73, Barry L. Ornitz WA4VZQ ornitz@tricon.net

73 for everybody,

Fernando Jorquera
fjorquer@myfamily.org
CE3EII
Santiago, Chile

Date: Fri, 6 Feb 1998 09:36:37 -0600
From: launerb@crl.com (William H. Launer)
Subject: Re: More RF current indicating devices...

Back in my Novice/ARC-5 days I used a #47 lamp as an output indicator. I was using an end-fed random wire (around 75 ft. long). For 80m, I simply shunted the lamp in parallel with about 3 ft. of the antenna at the xmtr antenna terminal. For 40m, I put it in series with the antenna. In both cases, I simply used the xmtr roller inductor and tuned for maximum lamp brilliance. While it didn't give me a quantitative power indication, it worked well, and cost virtually nothing.

73, Bill wb0cld

Bill Launer
St. Charles, MO
launerb@crl.com
wb0cld@wb0cld.ampr.org [44.46.66.25]
grp-l #279 qrp arc1 #3551
Grid Square EM48RT

Date: Fri, 6 Feb 1998 10:45:14 -0500
From: "Ornitz, Barry L" <ornitz@eastman.com>
Subject: RE: Cleaning with Kerosene! Watch out!

Hello Fernando. It is a pleasure to hear from you.
You asked:

> My own experience cleaning vintage radio chassis with isopropyl
> alcohol was very good. Does it really
> attack paint and plastic surfaces? I haven't
> experienced this never by myself.
>

Isopropanol will soften some lacquers, especially the cellulose acetate ones popular in Great Britain. It does not really dissolve them, but it can leave the surface looking cloudy. Really old celluloid (cellulose nitrate) from the days before we went to the cellulose acetates, propionates, and butyrates can also be affected. If you have some water in the alcohol, these problems are lessened. Rubbing alcohol is 70% isopropanol in water in the USA. Most drug stores also sell the 91% variety. Either should be good for cleaning many radios.

Acetone, on the other hand, will attack and dissolve many paints and plastics. I use it to clean old grease off switches and bearings which are not harmed by acetone. But be careful, some plastic insulated rotary switches will be harmed by acetone.

The thing to remember is to test the cleaning method first on an area that is not conspicuous. I like to try any cleaning method on the area normally covered by a knob skirt. If it hurts the finish, it is not seen when the knob is installed.

73, Barry WA4VZQ ornitz@eastman.com

Date: Fri, 6 Feb 1998 12:55:47 -0500 (EST)

From: rdkeys@csemail.cropsci.ncsu.edu

Subject: Re: More RF current indicating devices... neat ideas!

>

> Back in my Novice/ARC-5 days I used a #47 lamp as an output indicator. I
> was using an end-fed random wire (around 75 ft. long). For 80m, I simply
> shunted the lamp in parallel with about 3 ft. of the antenna at the xmtr
> antenna terminal. For 40m, I put it in series with the antenna. In both
> cases, I
> simply used the xmtr roller inductor and tuned for maximum lamp brilliance.
> While it didn't give me a quantitative power indication, it worked well,
> and cost virtually nothing.

>

> 73, Bill wb0cld

Neat idea. That makes me think if maybe one could take a foot or so of 450 ohm line and use that as the pickup with the floating lead going through the lamp to ground. I would expect that to work on both low and high impedance antennas. Hmmmmmm, wasn't there a twinline indicator based upon something like that back in the 60's? It rings a bell somewhere.

Another neat indicator is a 40 watt fluorescent lamp (or a smaller one) on the end of the antenna wire.....it gives you visual blinken lampen and worked fine on an end fed 80M wire back when I was a novice. Scared the neighborhood, though.....(:+{f.... I got that idea from my buddy with the breadboard brace of 4CX250B's running a KW on a 65

foot wire on 80M. He used it to tune up with. It glowed VERY brightly at a KW.

Bob/NA4G

Date: Fri, 6 Feb 1998 11:00:27 -0800 (PST)
From: Ken Gordon <keng@uidaho.edu>
Subject: 304TL Socket...FOUND!

I visited our Chemistry Department today. After some rummaging around in dark holes, we found 7ea brand new 304TL/TH sockets, NIB, in the far back of a lost cupboard.

The nice man in the tech shop gave me one.

These are in their original greenish-blue Johnson boxes with the orange label, saying (among other things) Tube Socket, One, 124-213.

So, all of you kind people who are rummaging in dark corners/boxes for a 304TL/TH socket can now stop looking, unless you need one(s) for your own version of the PP Hartley SE oscillator tx. (Hint...)

Ken W7EKB

End of glowbugs V1 #239
